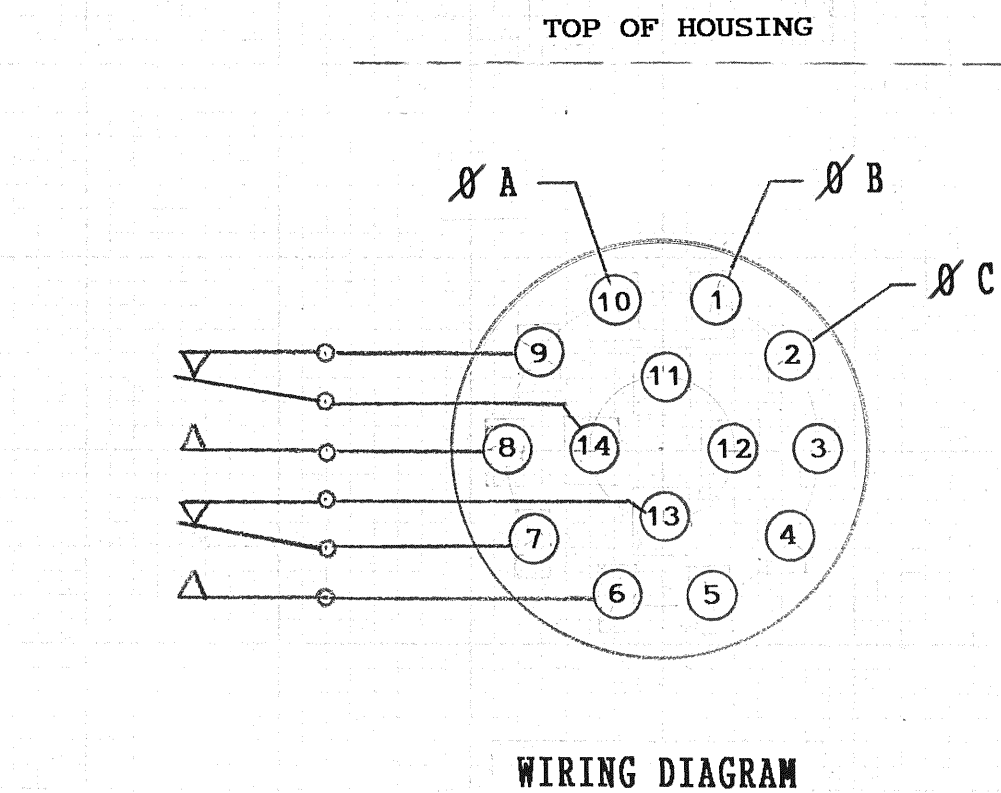
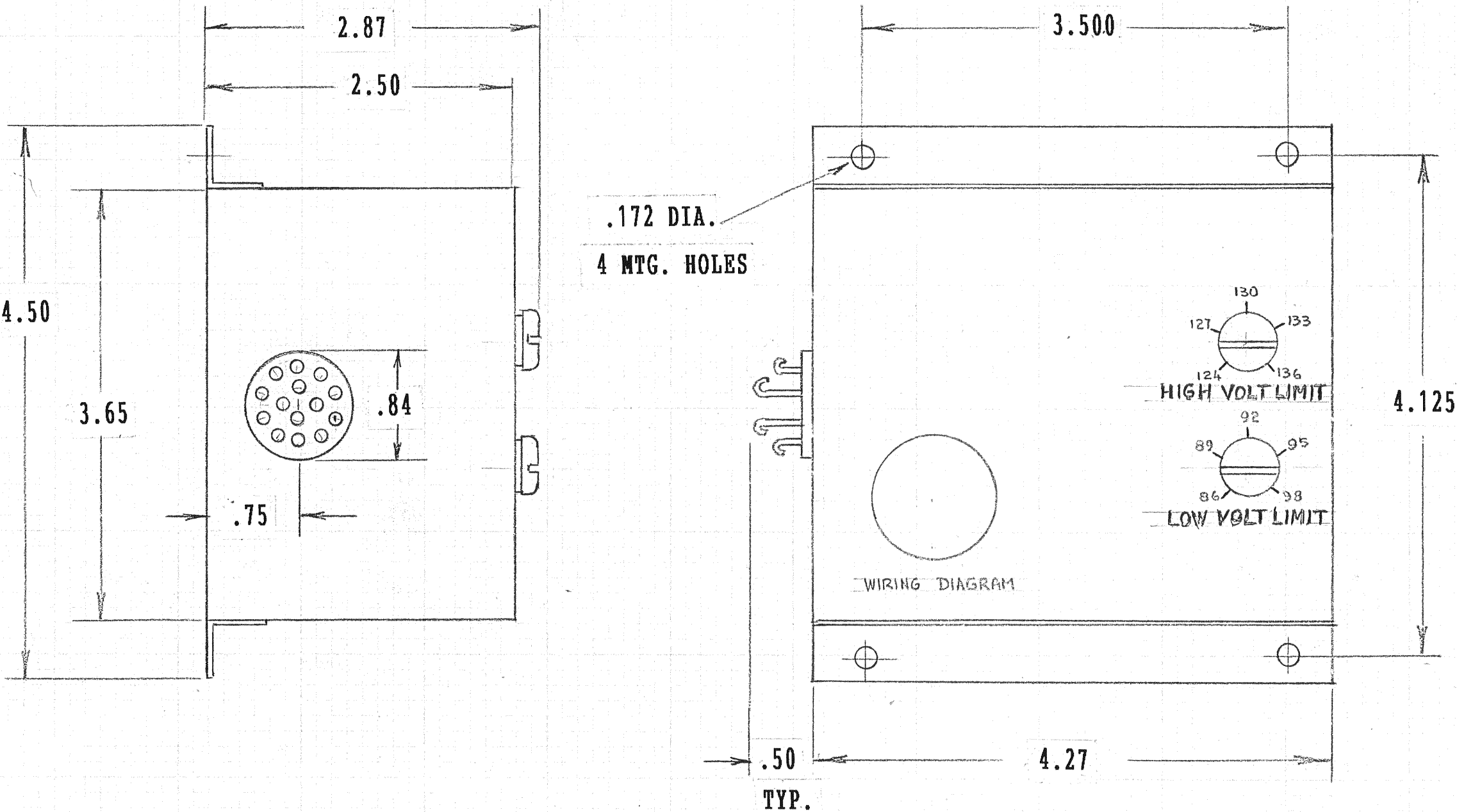


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	INSULATION RESIS. WAS 1000 MEG	2-12-97	Z.H.



OPERATION: When the input voltage is within the specified limits and the phase rotation is ABC, the output relay will energize after the specified pick up time delay. If the high or low voltage limits are exceeded for a time greater than the specified drop out time delay, the output relay will de-energize and remain so until the voltage returns to within the high-low limits. The output relay will not energize if the phase rotation is other than A-B-C, or if any phase is disconnected. When the relay is energized, the loss of one or more phases will cause the output relay to de-energize immediately. (.070 Sec. Typ.)

CONSTRUCTION: Solid state sensor, with electromechanical output relay, enclosed in a sealed steel housing, plated per MIL-T-10727, Type II, fused.

TABLE		
FREQUENCY	DYNALEC P/N	WILMAR MODEL
400Hz	14102-084-01	21-890
60Hz	14102-085-01	21-889

- NOTES:**
1. The high and low voltage limits are screwdriver adjustable.
 2. Remove sealing screws to gain access to the Low and High internal adjustment potentiometers.
 3. Replace screw and "O" ring after the adjustment is performed.

SPECIFICATIONS	
INPUT VOLTAGE:	115V RMS (NOM) 3 Phase, 3 W. delta in accordance with DOD-STD-1399 (Section 300) Type II power.
INPUT FREQUENCY :	60 and 400 Hz. (See table).
VOLTAGE TRANSIENTS:	Per MIL-STD-704D, Fig 5
PRESET VOLTAGE LIMITS: (SENSE BAND)	130V RMS ± 1% = High voltage limit 92V RMS ± 1% = Low voltage limit
VOLTAGE LIMITS ADJ RANGE:	± 6V approximately.
HYSTERESIS: (PU-DO diff.)	2 % max. (.5V Typical)
PICK UP DELAY:	2 Sec. ± 10%
DROP OUT DELAY:	2 Sec. ± 10%
LOSS OF PHASE DELAY:	.070 Sec.
PHASE REVERSAL DELAY:	.070 Sec.
OPERATING POWER:	6 VA max.
DIELECTRIC STRENGTH:	1000V RMS 60 Hz. (For 1 minute applied between all terminals tied together and the case.)
INSULATION RESISTANCE:	100 Megaohms at 500VDC (between all terminals tied together and the case.)
PHASE ROTATION, NORMAL:	A-B-C
TYPE OF SENSING:	Peak, average of the three phases.
RELAY CONTACTS:	DPDT
CONTACTS RATING:	10 A Resistive at 28V DC 6 A Inductive at 28V DC 5 A Resistive at 115V RMS 400 Hz. 2.5 A Inductive at 115V RMS 400 Hz. 3.0 A Resistive at 115V RMS 60 Hz. 2.0 A Inductive at 115V RMS 60 Hz.
CONTACTS INITIAL RESISTANCE:	.075 Ohms, max.
OPERATING TEMPERATURE:	-55°C to + 85° C.
STORAGE TEMPERATURE:	-65°C to + 125° C..
VIBRATION:	MIL-STD-167
SHOCK:	MIL-S-901
HUMIDITY	MIL-STD-810 C
ALTITUDE	MIL-STD-810 C (Sea Level to 70,000 Ft.)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±1/32 ±.010 ±1/2°		CONTRACT NO.		WILMAR ELECTRONICS, INC. 2430 AMSLER STREET TORRANCE, CALIFORNIA 90505	
DRAWN <i>C.M.</i> 12.3.96		CHECKED <i>E.R.H.</i> 12-7-96		TITLE RELAY, POWER MONITOR MODELS 21-889 & 21-890	
DESIGN APPROVAL <i>[Signature]</i>		PROJECT APPROVAL <i>[Signature]</i>		SIZE C	
DESIGN ACTIVITY APPROVAL		APPROVAL		CODE IDENT NO. 25248	
				DWG.NO. 21-889	
SCALE		WEIGHT		SHEET	

CUSTOMER DRAWING
 SD - 21-889
 TE Pn. 21-889=2-1618068-0
 21-890=2-1618068-1